

**Amendments to the Specification**

Please replace paragraph [0031] with the following rewritten paragraph:

[0031] The transmitter 400 can be either a single transmitter or a plurality of transmitters and any device that transmits, emits or irradiates a signal (or signals) towards the object to be imaged so that the input device ~~600~~ 100 can form an image of the object. For example, the transmitter 400 can be a x-ray source that allows an x-ray image to be taken of a human body. Furthermore, the transmitter 400 can be a light source that allows an object to be scanned for imaging. The interface device 500 allows each component of the imaging system 1000 to communicate with each other so that the imaging system 1000 can function normally.

Please replace paragraph [0033] with the following rewritten paragraph:

[0033] Although these various components of the imaging system 1000 are discussed for example purposes only, it should be appreciated that the systems and methods according to this invention can be used with any components of imaging systems, and using more or less components, without departing from the spirit and scope of the invention. For example, the imaging system 1000 can be an x-ray imaging system configuration disclosed in ~~U.S. Application No. 09/444,704~~ U.S. Patent No. 6,408,054 to Rahn et al., herein incorporated by reference in its entirety, for imaging objects that includes an x-ray emitter and an image contrast grid (antiscatter grid) placed between the x-ray emitter and image contrast grid. The x-ray emitter emits x-rays ~~that impinge~~ on an object to be imaged, i.e., the human body. The transmitted x-rays then strike a surface of a detector within the grid in order to form the image of the object.

Please replace paragraph [0038] with the following rewritten paragraph:

[0038] ~~When Referring to Fig. 3,~~ when a signal  $V_{bias}$  is received from the control electronics 602, the signal  $V_{bias}$  is passed through the diode 651 and input into the source of the transistor  $T_1$ . The control signal  $\Phi_1$  controls the signal or the charge of the signal that is stored in the capacitor 670. When the control signal  $\Phi$  controls the signal or charge to be stored in the capacitor 670, the signal is sent from the drain of the transistor  $T_1$  to the capacitor 670, where the signal is stored as a charged signal. Then gate line  $G_1$  can be controlled to read out the stored signal from the capacitor 670 in order to deliver the signal, to the receive electronics via line  $D_1$ . The gate controls conductance of a channel between the source and the drain. An input signal voltage is generally applied to the gate. When the gate line  $G_1$  is activated, the charged signal stored in the capacitor 670 is sent to the source of the transistor  $T_2$  through the gate and then through the drain of the transistor  $T_2$  to the diode through the data line  $D_1$ . A copy of this circuit exists for each pixel on the imager. For a two-dimensional array, the line  $D_1$  is shared among all pixels in the same column, and the gate line  $G_1$  is shared among all pixels in the same row.

Please replace paragraph [0049] with the following rewritten paragraph:

[0049] When the signal from the photodiode 653 is input into the pixel circuitry 680, the signal is either controlled by the control signal  $\Phi_1$  to be stored in the capacitor 670 or controlled by control signal  $\Phi_2$  to be blind using the common ground ~~655~~652. When the control signal  $\Phi_1$  controls the signal or charge to be stored in the capacitor 670, the signal is sent from the drain of the transistor  $T_1$  to the capacitor 670 where the signal is stored as a charged signal. However, when control signal  $\Phi_2$  controls the signal from photodiode 653 to be blind, the signal is not sent to the capacitor 670, and is instead grounded via the common ground ~~655~~652. Thus, the sensor of the receiver 602 is blind during one phase. Thus, the pixel circuitry 680 configuration according to this embodiment can significantly reduce

leakage that can occur through the capacitor 670 to the diode line  $D_1$  by using the common ground ~~655-652~~ to blind the receiver 602 at determined phases.

Please replace paragraph [0050] with the following rewritten paragraph:

[0050] ~~The Referring to Fig. 5, the~~ stored signal in the capacitor 670 is subsequently read out when the gate line  $G_1$  is controlled to read out the stored signal from the capacitor 670 in order to deliver the signal, for example, to the diode via line  $D_1$ . As with the embodiment in Fig. 4, when the gate line  $G_1$  is activated, the charged signal stored in the capacitor 670 is sent to the source of the transistor  $T_3$  through the gate and then through the drain of the transistor  $T_3$  to the diode through the readout line  $D_1$  where the signal can be displayed to represent the object that has been imaged.

Please insert the following new paragraphs after paragraph [0052]:

[0053] Fig. 7 shows a schematic diagram of a fourth exemplary pixel circuitry 700 that can be used for the systems and methods according to another embodiment of the invention. With the pixel circuitry 700 in Fig. 7, the circuitry includes four capacitors 670-673 which are connected to a sensor photodiode 653, eight transistors  $T_1$ - $T_8$ , grounds 651-654 and control signals  $\theta_1$ - $\theta_4$ .

[0054] When the signal from the photodiode 653 is input into the pixel circuitry 700, the signal is controlled by the control signals  $\theta_1$  to be stored in capacitor 670,  $\theta_2$  to be stored in capacitor 671,  $\theta_3$  to be stored in capacitor 672 or  $\theta_4$  to be stored in capacitor 673. Control signals  $\theta_1$ - $\theta_4$  control respective transistors  $T_1$ ,  $T_2$ ,  $T_5$  and  $T_6$ . Then, gate lines  $G_1$ - $G_4$  control transistors  $T_3$ ,  $T_4$ ,  $T_7$  and  $T_8$  respectively to read out the stored charge of each respective capacitor 670-673 in order to send the signal to any of diode lines  $D_1$ - $D_4$ .